

The opinion in support of the decision being entered today was **not** written for publication and is **not** binding precedent of the Board.

Paper No. 25

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

**MAILED**

APR 29 2004

PAT. & T.M. OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 2003-0539  
Application No. 09/188,702

ON BRIEF

Before COHEN, STAAB, and BAHR, Administrative Patent Judges.  
STAAB, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on an appeal from the examiner's final rejection of claims 6-12, all the claims currently pending in the application.

Appellants' invention pertains to a connector for use in a construction toy system. More particularly, the appealed claims are directed to a connector comprising a disc shaped plastic member (element 13 in Figure 1) having holes into which rods (elements 12

in Figure 1) may be inserted. Appellants' Figure 2 shows the connector in plan view. As seen in Figure 2, the connector comprises a plurality of pairs of holes for receiving projecting fingers (elements 17a, 17b in Figure 1) of rods 12. Two types of pairs of holes are provided. In a first type (element 23 in Figure 2), holes 24a and 24b are separated from each other by a web. In a second type (element 22 in Figure 2), the holes are interconnected to each other by a narrow passage extending between the holes.

A further understanding of the claimed invention can be derived from a reading of exemplary claim 6, reproduced below:

6. Female connectors [sic, connector] for use with a genderless construction system wherein said female connector is comprised of a substantially round disc shaped plastic member having two holes formed therein and adapted to mate with a two-fingered genderless connector by means of an interference fit when the fingers are inserted into the holes, at least one of said holes being substantially triangularly shaped and including three internal angular corners, one of said corners of said at least one hole being closer to the other of said two holes than the other two of said three corners.

The single reference relied upon by the examiner in the final rejection is:

Glickman

5,350,331

Sep. 27, 1994

Claims 6-12 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Glickman.

In rejecting the appealed claims as being unpatentable over Glickman, the examiner relied on the connector element shown in Figure 25. According to the examiner (answer, page 3), Figure 25 of Glickman shows a connector having at least two holes formed therein, with the holes being adapted to mate with the lug 401 of a block 400 by means of an interference fit when the lug is inserted into the holes. As the examiner sees it, the Figure 25 connector element differs from the claimed connector in that the holes are trapezoidally shaped rather than triangularly shaped. The examiner considers, however, that "the shape of the holes [is] dictated by the shape of the [mating] connector and the [appellants'] specification does not express any advantage of the two-fingered genderless connector over other types of connector[s]" (answer, page 3). Based on the above, the examiner concluded that it would have been obvious to one of ordinary skill in the art "to modify the shape of the holes to conform to the shape of the desired connector such as [a] two-fingered genderless connector for the advantage of enhancing the connection between the connectors" (answer, page 3-4).

Discussion

Rejections based on 35 U.S.C. § 103 must rest on a factual basis. *In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 177-78 (CCPA 1967), cert. denied, 389 U.S. 1057 (1968). In making such a rejection, the examiner has the initial duty of supplying the requisite factual basis and may not, because of doubts that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in the factual basis. *Id.*

In the present case, the examiner has identified an alleged difference between the applied prior art and the claimed invention, namely, the shape of the holes in the connector. Hence, the issue, as framed by the examiner, is whether it would have been obvious to one of ordinary skill in the art "to modify the shape of the holes [of Glickman's Figure 25 connector element] to conform to the shape of [a] desired connector" (answer, page 3-4). Like appellants, we believe that the examiner has failed to advance any factual basis to support the conclusion that it would have been obvious to one of ordinary skill in the art to modify the shape of the holes of Glickman's' Figure 25 connector. The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification

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(see *In re Gordon*, 733 F.2d 900, 902, 221 USPQ 1125, 1127 (Fed. Cir. 1984)). Glickman contains no such suggestion.

Accordingly, we shall not sustain the examiner's rejection of claims 6-12 under 35 U.S.C. § 103(a) as being unpatentable over Glickman.

New Ground of Rejection

Pursuant to our authority under 37 CFR § 1.196(b), we enter the following new ground of rejection.

Claims 6, 7 and 9-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by the Figure 25 connector element of Glickman.

Notwithstanding that we have not sustained the examiner's rejection of the appealed claims under 35 U.S.C. § 103(a) as being unpatentable over Glickman's Figure 25 connector element on an obviousness rationale, we consider the Figure 25 connector element to be highly relevant prior art with respect to appellants' claimed invention. As we see it, the issue is whether the holes or openings in the Figure 25 connector of Glickman comprise "substantially triangularly shaped" holes having "internal angular corners" as called for in claim 1.

In proceedings before it, the PTO applies to the verbiage of claims the broadest reasonable meaning of the words in their ordinary usage as they would be understood by one of ordinary skill

in the art, taking into account whatever enlightenment by way of definitions or otherwise that may be afforded by the written description contained in the applicant's specification. *In re Morris*, 127 F.3d 1048, 1054, 44 USPQ2d 1023, 1027 (Fed. Cir. 1997).

In the present case, appellants have chosen to describe the shape of the holes using the term "triangularly," a word with a relatively fixed and definite meaning," in combination with the term "substantially," a modifier that broadens the meaning of the term being modified. In considering the extent to which the term "substantially" broadens the term "triangularly" in appellants' claims en route to determining the broadest reasonable meaning of the terminology "substantially triangularly shaped," we note that the holes 24a, 24b forming the so-called "type 3 connector" 23 in appellants' Figure 2 are bounded by first and second straight line segments and a third curved line segment, with the line segments being connected together by short arcuate line segments. The holes 26 forming the so-called "type 2 connector" 22 are similar, except that they are interconnected by a narrow passage. While these holes somewhat resemble triangles in the sense that they have three predominant sides, they are not, in the geometric sense of the

word, "triangles."<sup>1</sup> Given the shape of the holes in appellants' Figure 2 which correspond to the claimed "substantially triangularly shaped" having "internal angular corners," we consider the terms "substantially triangularly shaped" and "internal angular corners" used in appellants' claims to describe the shape of the holes to be relatively broad terms that encompasses within their metes and bounds not only the holes illustrated in appellants' Figure 2 but also the holes of Glickman's Figure 25 connector. We find this to be the case notwithstanding that the holes of Glickman's Figure 25 connector are trapezoids. In addition, the holes of the Figure 25 connector of Glickman are radially arranged such that opposed pairs of holes each have one corner closer to the other hole of the pair than the other two corners. Thus, all the structural limitations of claim 1 are found in Figure 25 connector of Glickman. Hence, claim 1 "reads on" Glickman's Figure 25 connector, and the Figure 25 connector anticipates claim 1.<sup>2</sup>

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<sup>1</sup>The word "triangle" may mean "**1** : a usu. plane polygon having three sides." Also, the word "polygon" may mean "**1a** : a closed figure consisting of straight lines joined end to end." *Webster's Third New International Dictionary*, G. & C. Merriam Company, copyright © 1971.

<sup>2</sup>In order for a prior art reference to anticipate a claim, it is not necessary that the reference teach what the subject application teaches, but only that the claim "reads on" something (continued...)

Claim 7 is anticipated by Glickman's Figure 25 connector because each of the holes is separated from an opposed hole by a web of material, namely, the web (not numbered) that curves back on itself to form the circular opening for receiving the strut 403. Claim 9 is anticipated by Glickman because all of the holes of the Figure 25 connector are the same. Claim 10 is anticipated by Figure 25 of Glickman because each hole has an innermost corner aligned with the innermost corner of an opposed hole. Concerning claim 11, the remarks of claim 7 apply.

Appellants' arguments in the brief have been considered to the extent they apply to our new ground of rejection. The requirement of claim 1 that the connector has two holes "adapted to mate with a two-fingered genderless connector by means of an interference fit when the fingers are inserted into the holes" does not distinguish over Glickman's Figure 25 connector because the holes of the Figure 25 connector reasonably appears to be fully capable of receiving and forming an interference fit with an appropriately shaped male connector member. Thus, appellants' argument on page 4 of the

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<sup>2</sup>(...continued)  
disclosed in the reference, i.e., that all of the limitations of the claim be found in or fully met by the reference. *Kalman v. Kimberly-Clark Corp.*, 713 F.2d 760, 772, 218 USPQ 781, 789 (Fed. Cir. 1983), cert. denied, 465 U.S. 1026 (1984).

brief to the effect that the "adapted to mate with . . ." limitation of the appealed claims distinguishes over Glickman's Figure 25 connector because the holes of the Figure 25 connector are not disclosed as mating with the fingers of a connector rod is not persuasive.<sup>3</sup>

Summary

The obviousness rejection of claims 6-12 as being unpatentable over Glickman is reversed.

Pursuant to 37 CFR § 1.196(b), a new anticipation rejection of claims 6, 7 and 9-11 has been entered.

This decision contains a new ground of rejection pursuant to 37 CFR § 1.196(b). 37 CFR § 1.196(b) provides that, "[a]new ground of rejection shall not be considered final for purposes of judicial review."

37 CFR § 1.196(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection

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<sup>3</sup>See, for example, *In re Schreiber*, 128 F.3d 1473, 1477, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) (manner in which claimed device is intended to be employed does not differentiate claimed device from prior art device satisfying structural limitations of claim.) and *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 228-29 (CCPA 1971) (regarding functional language and statements of intended use, it is sufficient that prior art structure be capable of performing recited function or use).

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to avoid termination of proceedings (§ 1.197(c)) as to the rejected claims:

(1) Submit an appropriate amendment of the claims so rejected or a showing of facts relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the application will be remanded to the examiner....

(2) Request that the application be reheard under § 1.197(b) by the Board of Patent Appeals and Interferences upon the same record....

No time period for taking any subsequent action in connection with this appeal be extended under 37 CFR 1.136(a).

REVERSED; 37 CFR § 1.196(b)

  
IRWIN CHARLES COHEN )  
Administrative Patent Judge )  
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LAWRENCE J. STAAB ) BOARD OF PATENT  
Administrative Patent Judge ) APPEALS  
 ) AND  
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